



An Australian Government Initiative

# Groundwater Education Investment Fund Project

## Borehole Infrastructure Report

<b>Funding</b>	SuperScience	<b>Project</b>	Flinders University
<b>Borehole Type</b>	Piezometer/monitoring Bore	<b>Location</b>	Kootingal, NSW 2352
<b>Unique Well ID</b>	GW273218-1	<b>Installed By</b>	NSW Office of Water
<b>Completion Date</b>	28.07.2011	<b>Depth Installed [m]</b>	8.5
<b>Drilled By</b>	NSW Office of Water	<b>Depth Drilled [m]</b>	8.5
<b>Monument Type</b>	Round metal swing top	<b>Drilled Diameter/Method</b>	186mm/rotary hammer
<b>Monument Diameter/Width [mm]</b>	170	<b>Screen Depth [m]</b>	5.5-8.5
<b>Top of Monument from GL [m]</b>	0.91	<b>Screen Type</b>	machine slotted PVC
<b>PVC Casing to TOM [mm]</b>	-45	<b>Level of Bentonite [m]</b>	3.5-4.5
<b>Elevation (AHD71)</b>	419.183	<b>Casing Size/Type</b>	50mm PVC Class 18
<b>Easting</b>	314502.29	<b>SWL After Development [m]</b>	6.69
<b>Northing</b>	6561762.35	<b>Development Details</b>	2 hours air lifted



Comments
This borehole is situated within a multiple bore, riverside groundwater investigation site.

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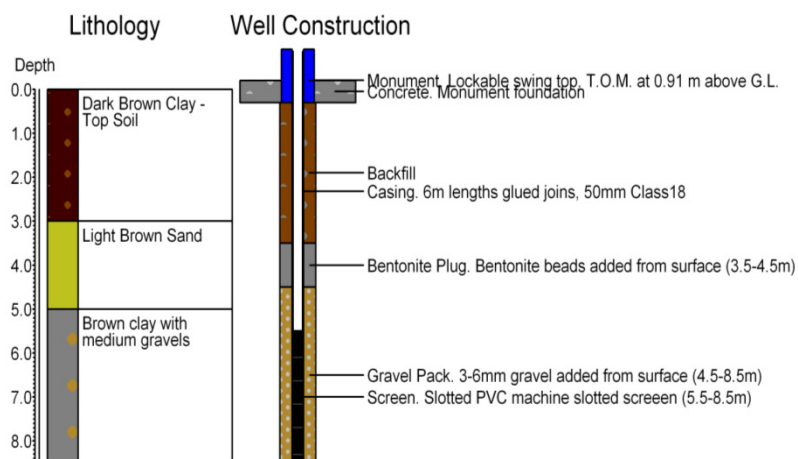
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### Stratigraphic Bore Log

Samples of the drill cuttings were obtained during drilling of the borehole and stored for future reference. Standard borehole information is documented in the bore log below.

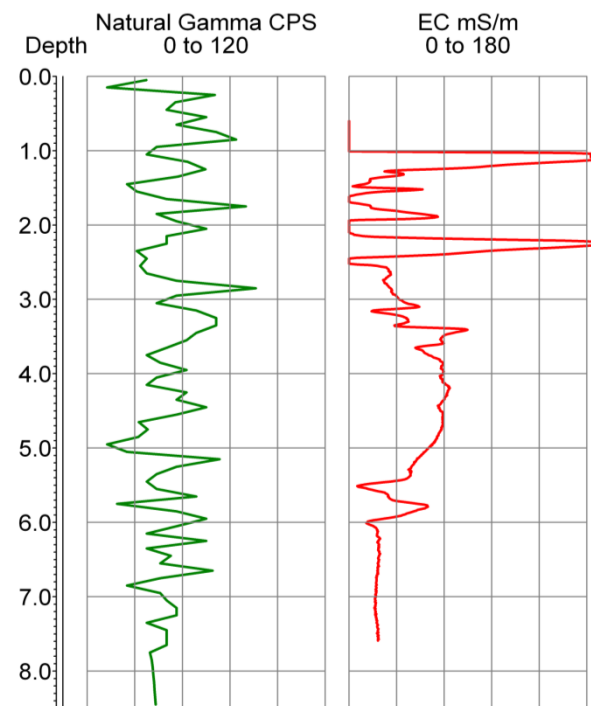
#### CKBN18-1



### Geophysics Log

The portable Geovista logging system was used to collect geophysical data from 8.5m to surface. The Electrical Conductivity sonde (EM39) is used to obtain quantitative information on dissolved salts and apparent bulk conductivity information. The natural gamma sonde (NGRS) is predominantly used for qualitative evaluations of stratigraphic characteristics, argillaceous sediments and clay minerals.

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### Slug Test

A standard slug test was performed using a real-time water level logger and a solid slug to test the borehole permeability. The results of the slug test are shown graphically below. Full data sets are available from the report author.

### Groundwater Quality

Basic chemical analysis of the dissolved solutes and concentration of ions in the borehole was performed. The testing also included hydrogen ion activity (pH) and fluid electrical conductivity (EC). Data from the chemical analysis is shown below.

Date	0/01/1900		Ca <sup>2+</sup>	0.00	[mg/L]
Time	0:00		K <sup>+</sup>	0.00	[mg/L]
SWL	0.00	[m]	Mg <sup>2+</sup>	0.00	[mg/L]
Field pH	0.0		Na <sup>+</sup>	0.00	[mg/L]
EC	0	[μS/cm]	Si	0.00	[mg/L]
Temp	0.0	[°C]	Cl <sup>-</sup>	0.00	[mg/L]
Alkalinity	0.00	[meq/L]	NO <sub>3</sub> <sup>-</sup>	0.00	[mg/L]
O <sub>2</sub>	0.00	[mg/L]	SO <sub>4</sub> <sup>2-</sup>	0.00	[mg/L]